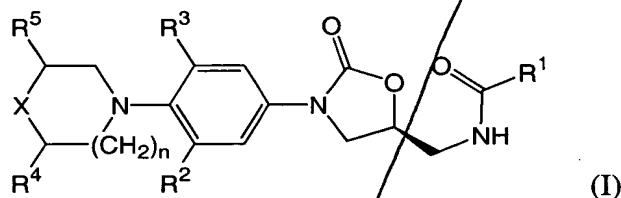


CLAIMS

What is claimed is:

1. A pharmaceutical composition, comprising at least one oxazolidinone antibacterial drug in a solid particulate form dispersed in a pharmaceutically acceptable carrier in which the at least one oxazolidinone is poorly soluble, said composition being adapted for rectal administration.
2. The composition of Claim 1 wherein the at least one oxazolidinone antibacterial drug is a compound of formula (I):



wherein:

R^1 is selected from (a) H, (b) C_{1-8} alkyl optionally substituted with one or more F, Cl, OH, C_{1-8} alkoxy, C_{1-8} acyloxy or benzoxy groups, and including C_{3-6} cycloalkyl, (c) amino, (d) mono- and di(C_{1-8} alkyl)amino and (e) C_{1-8} alkoxy groups;

R^2 and R^3 are independently selected from H, F and Cl groups;

R^4 is H or CH_3 ;

R^5 is selected from H, CH_3 , CN, CO_2R^1 and $(CH_2)_mR^6$ groups, where R^1 is as defined above, R^6 is selected from H, OH, OR^1 , $OCOR^1$, $NHCOR^1$, amino, mono- and di(C_{1-8} alkyl)amino groups and m is 1 or 2;

n is 0, 1 or 2; and

X is O, S, SO, SO_2 , SNR^7 or $S(O)NR^7$ where R^7 is selected from H, C_{1-4} alkyl (optionally substituted with one or more F, Cl, OH, C_{1-8} alkoxy, amino, C_{1-8} mono- or di(C_{1-8} alkyl)amino groups), and p-toluenesulfonyl groups;

or a pharmaceutically acceptable salt thereof.

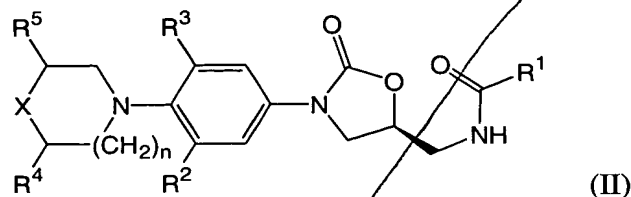
3. The composition of Claim 1, wherein the solid particulate form of the at least one oxazolidinone has a volume median diameter of about 0.5 μm to about 150 μm .
4. The composition of Claim 1 wherein the pharmaceutically acceptable carrier is

lipophilic.

5. The composition of Claim 4 wherein the lipophilic carrier is solid at room temperature.
6. The composition of Claim 1 having a bioavailability of at least 25% of the total concentration of oxazolidinone in a dose of the composition administered to a subject.
7. The composition of Claim 1, wherein the total concentration of oxazolidinone in the composition is sufficient to be effective for treatment and/or prophylaxis of a gram-positive bacterial infection in a subject when administered thereto.
8. The composition of Claim 1 wherein the total concentration of oxazolidinone in the composition is about 0.1% to about 50% by weight.
9. The composition of Claim 1 which is a dosage form selected from the group consisting of suppository, enema, microenema and rectal capsule.
10. The composition of Claim 4 wherein the lipophilic carrier comprises a glyceride of fatty acids or a mixture of glycerides of fatty acids.
11. The composition of Claim 10 wherein the lipophilic carrier comprises a hard fat.
12. The composition of Claim 11 wherein the hard fat has a β -polymorphic form which has a flow point of about 25°C to about 40°C.
13. The composition of Claim 11 wherein the hard fat is a mixture of glyceride esters of vegetable C₁₂-C₁₈ saturated fatty acids containing more than about 50% triglyceride esters.
14. The composition of Claim 13 wherein the hard fat has an open-tube melting point of about 31-36°C in its α -polymorphic form; a solidification point of about 30-35°C in its α -polymorphic form; a hydroxyl value of not more than about 15 mg KOH/g; a saponification value of about 230-250 mg KOH/g; diglyceride content not more than about 15% by weight; and monoglyceride content not more than about 1% by weight.
15. The composition of Claim 4 which is solid and has a weight of about 0.1 g to about 10 g.

16. The composition of Claim 1, wherein the at least one oxazolidinone antibacterial drug has a particle size of less than about 20 μm .
17. The composition of Claim 1 wherein the at least one oxazolidinone antibacterial drug is linezolid.
- 5 18. The composition of Claim 1 wherein the at least one oxazolidinone antibacterial drug is N-[[[(5S)-3-[4-(1,1-dioxido-4-thiomorpholinyl)-3,5-difluorophenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide.
19. The composition of Claim 1, further comprising at least one antibacterial drug, other than an oxazolidinone, effective against gram-negative bacteria.
- 10 20. The composition of Claim 19 wherein the at least one antibacterial drug effective against gram-negative bacteria is selected from the group consisting of: amikacin, ampicillin, azithromycin, aztreonam, carbapenam, cefazolin, ceftazidime, cefixime, ceftriaxone, cefoperazone, cefotaxime, ceftizoxime, cefuroxime, chloramphenicol, ciprofloxacin, clindamycin, colistin, domeclocycline, doxycycline, erythromycin, gentamicin, imipenem, levofloxacin, mafenide, methacycline, metronidazole, minocycline, neomycin, norfloxacin, ofloxacin, oxytetracycline, piperacillin, polymyxin B, pyrimethamine, silver sulfadiazine, sulbactam, sulfacetamide, sulfisoxazole, tetracycline, tobramycin, trimethoprim and quinolone.
- 15
- 20 Sub 21. A method of treatment or prevention of a gram-positive bacterial infection in a subject comprising:
- AI
- 25 (a) providing a pharmaceutical composition, comprising at least one oxazolidinone antibacterial drug in a solid particulate form dispersed in a pharmaceutically acceptable carrier in which the at least one oxazolidinone is poorly soluble, said composition being adapted for rectal administration; and
- (b) rectally administering the pharmaceutical composition to the subject.
22. The method of Claim 21, wherein the solid particulate form of the at least one oxazolidinone provided in step (a) has a volume median diameter of about 0.5 μm to about 150 μm .
- 30 23. The method of claim 21, wherein the at least one oxazolidinone antibacterial drug

is a compound of formula (II):



wherein:

R^1 is selected from (a) H, (b) C_{1-8} alkyl optionally substituted with one or more F, Cl, OH, C_{1-8} alkoxy, C_{1-8} acyloxy or benzyloxy groups, and including C_{3-6} cycloalkyl, (c) amino, (d) mono- and di(C_{1-8} alkyl)amino and (e) C_{1-8} alkoxy groups;

R^2 and R^3 are independently selected from H, F and Cl groups;

R^4 is H or CH_3 ;

R^5 is selected from H, CH_3 , CN, CO_2R^1 and $(CH_2)_mR^6$ groups, where R^1 is as defined above, R^6 is selected from H, OH, OR^1 , $OCOR^1$, $NHCOR^1$, amino, mono- and di(C_{1-8} alkyl)amino groups and m is 1 or 2;

n is 0, 1 or 2; and

X is O, S, SO, SO_2 , SNR^7 or $S(O)NR^7$ where R^7 is selected from H, C_{1-4} alkyl (optionally substituted with one or more F, Cl, OH, C_{1-8} alkoxy, amino, C_{1-8} mono- or di(C_{1-8} alkyl)amino groups), and p-toluenesulfonyl groups;

or a pharmaceutically acceptable salt thereof.

24. The method of Claim 21, wherein the total concentration of oxazolidinone in the pharmaceutical composition provided in step (a) is sufficient to be effective for treatment and/or prophylaxis of a gram-positive bacterial infection in the subject when administered thereto in step (b).

25. The method of claim 21, wherein the pharmaceutical composition further comprises at least one antibacterial drug effective against gram-negative bacteria.

26. The method of Claim 25 wherein the at least one antibacterial drug effective against gram-negative bacteria is selected from the group consisting of amikacin, ampicillin, azithromycin, aztreonam, carbapenam, cefazolin, ceftazidime, cefixime, ceftriaxone, cefoperazone, cefotaxime, ceftizoxime, cefuroxime,

chloramphenicol, ciprofloxacin, clindamycin, colistin, domeclocycline, doxycycline, erythromycin, gentamicin, imipenem, levofloxacin, mafenide, methacycline, metronidazole, minocycline, neomycin, norfloxacin, ofloxacin, oxytetracycline, piperacillin, polymyxin B, pyrimethamine, silver sulfadiazine, sulbactam, sulfacetamide, sulfisoxazole, tetracycline, tobramycin, trimethoprim and quinolone.

27. The method of claim 21 wherein the at least one oxazolidinone antibacterial drug is linezolid.

28. The method of claim 27, wherein the subject is an adult human and about 400 to about 600 mg of the linezolid is administered rectally twice daily to the subject for a period of about 10 to about 28 days.

29. The method of Claim 27, wherein the subject is a human child and about 8 to about 12 mg linezolid per kg body weight is administered rectally 2 to 3 times daily for a period of about 10 to about 28 days.